Attractive steel design for Centrelink Call Centre

The Centrelink Call Centre, completed in 37 weeks is an attractive yet simple steel design.

Located in Bunbury, the largest urban centre south of Perth with a rapidly growing population, the 3 storey purpose built call centre enjoys views to the Indian Ocean.

The call centre has 3200 square metres of floor space and parking over the full area of the basement of the building.

Rob Skipworth of Horizon Design, project designers said that "we wanted to keep the building light not just in weight but in look and the penetration of light to the interiors. Our objective with the foyer was to create an interesting focal point for the building."

Staff and visitors enter the building through a foyer void at street level that rises to the full height of the building. Curved balconies on each floor overlook the void and allow views out over the town to the ocean.

Skipworth went on to say that "to create interest in the void, and facilitate the views from each level the curved balconies within the lobby have been set back and stagged and rotated from the lift area."

"Two feature curved roofs have been constructed over the steel and glass 3 storey façade. The curved roof was created to simulate the natural arch motion of the waves from the nearby Indian Ocean," Skipworth concluded.

An under croft car park has been excavated into the ground behind the foyer and supports the 2 levels of office space above.

Phil Scott of Scott & Associates, Structural Engineers on the project said that "we decided early that the most economical form of construction materials would be a combination of a steel framed building with a composite floor."

Scott added that "in the initial discussions with the builder and designer it was established that the client wanted an office with minimal columns so we adopted a structural grid of 11 by 9 metres giving the required column free floor space and conforming to a logical car parking layout below. The square footprint was chosen to maximise the floor space while minimising the perimeter wall cost."

"The 3 storey panel walls are repeated around the perimeter of the building. The structural grid lines coincide with panel joints to minimise connection costs. So the building is simple in its repetition of structural elements and erection process, allowing the required economy to be achieved," concluded Scott.

Sean Gavin of Gavin Construction described the structural steelwork saying that "each floor has 1300 square metres of space on a geometric

The steel formed car park with composite floor.

configuration. The 51 secondary beams, which are OneSteel 360UB51 spanning 11 metres, were given a minor pre-camber and support the composite floor, utilising a trapezoidal profiled steel deck, a previously unusual flooring method for Western Australia."

Gavin also added that the main floor beams are OneSteel 300 PLUS 530UB82 standard beams. "We gained a significant time advantage by not having to provide any propping so construction of the floors proceeded without any delays. The turn around floor cycle time for the building was two weeks."

"The roof structure is supported by the perimeter walls and two internal steel columns only. Primary and secondary steel trusses carry standard purlins and roof sheeting with the in-plane design to carry wind loads over the entire height of the building until the floor slabs were installed," Gavin concluded.

All the structural steel above the basement is within the glazed area of the building and has been left untreated. The surface of the steel inside the under croft car park has been especially treated (galvanised and painted) to protect it from the nearby harsh ocean environment.

The building was fire safety engineered which enabled all the steelwork to be non-fire rated.

The short construction time frame, possible with the steel structure in conjunction with composite flooring and tilt up panel walling, allowed the building to be completed earlier than would have been possible with other construction options.

Project Team
Designer: Horizon Design
Structural Engineers: Scott & Associates
Builder: Gavin Construction
Steel Fabrication: Fabricon Steel Fabrications
Steel Detailing: Universal Drafting
Fire Safety Engineer: C A & M J Lommers